



Safety Data Sheet

P 81CR

SMAW Un- and Low-alloyed Electrode

Art. no: 7181- XXXX

Elga rev. date: 2009-11-23

Customer rev. date
(printing date):

1. Product and Company identifications

Product name: P 81CR
Application: Arc welding
Classification(s): EN 1599: E Mo B 42 H5
AWS A5.5: E 7018-A1
Supplier: Elga AB
Address: Box 277, SE-433 25 Partille, Sweden
Telephone: +46 31 7264600
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Internet: www.elgawelding.com

2. Hazards identification

When the product is used in the welding process the most important hazards are; *Heat*: spatter, hot metal and slag can burn skin and cause fire. *Radiation*: arc rays can injure eyes and burn skin. Electric shock: can kill. *Dust*: can cause irritation to eyes and lungs. *Fume*: overexposure to fumes and gases can be dangerous to health.

3. Composition

Ingredients coating components	Weight%	CAS No	EINECS#	H-symbol	R-phrases
Iron	<48	7439-89-6	231-096-4	n/a	n/a
Silicon	<5	7440-21-3	231-130-8	n/a	n/a
Manganese	<8	7439-96-5	231-105-1	n/a	n/a
Aluminium oxide	<2	1344-28-1	215-691-6	n/a	n/a
Fluorides (as F)	<12	7789-75-5	232-188-7	n/a	n/a
Molybdenum	<5	7439-98-7	231-107-2	n/a	n/a

The balance is a mixture of rutile, calcium carbonate and other minerals.

4. First aid measures

Inhalation: if breathing is difficult, provide fresh air and call a doctor.

Burns: for skin burns from radiation, see doctor. Eye injuries: for radiation burns (arc flash), see doctor; for dust irritation rinse eyes with eyewash solution

5. Fire fighting measures

No specific requirements applicable.

6. Accidental release measures

Personal: see section 8. Environmental precautions: see section 13. Methods for cleaning up: see section 13.

7. Handling and storage

No specific safety precautions necessary in the form supplied.

8. Exposure controls/personal protection

Engineering measures: General ventilation and local fume extraction must be adequate to keep fume concentrations within safe limits for both the welder and others.

Personal protection: Use respiratory protective equipment when welding in a confined space. Wear protective clothing and eye protection appropriate to arc welding. Avoid touching live electrical parts.

Following table indicate which components that might need exposure control due to handling of the named product.

Component	CAS No	WEL g/m3 (1)	NGV mg/m3 (2)
Iron	7439-89-6	5(f)	3,5(f)
Silicon	7440-21-3	10(d), 4**	n/a
Manganese	7439-96-5	0,5	0,2*, 0,5**
Aluminium oxide	1344-28-1	10(d), 4**	5*, 2**
Fluorides (as F)	7789-75-5	2,5(F)	2(F)
Molybdenum	7439-98-7	10	10*, 5**

(1) COSHH doc EH40 Workplace Exposure Limits, 8h TWA

(2) AFS 2007:2

*Total dust / **Respirable fraction / Inhalable fraction as (f) fume, (d) dust, (m) moist / (c) ceil

9. Physical and chemical properties

Physical state: Solid
Odour: Odourless
Colour: Grey
Form: Core wire with extruded coating

10. Stability and reactivity

Conditions to avoid: n/a

Hazardous decomposition products: welding fumes and gases. Additional fume may arise from coatings and contaminants on the base material.

Fume analysis: wt %

Fe	Mn	Ni	Cr	Cu	Pb	F
15-20	<8	<0.2	<0.2	<0.3	<0.1	15-20

Refer to applicable national exposure limits for welding fume and its compounds.

11. Toxicological information

No effects in the form supplied. When welding, fumes and gases generated can be dangerous to health. Short-term overexposure can cause dizziness, nausea and irritation of the nose, throat or eyes. Long-term overexposure may effect the lungs. Overexposure to manganese may affect the nervous system. Certain chromium and nickel compounds, like Cr(VI) are suspected of being cancercausing agents.

12. Ecological information

The welding process can effect the environment if fume is released directly into the atmosphere.

13. Disposal considerations

Dispose of any product, residue or packing material according to national and local regulations. Use recycling procedures if available.

14. Transport information

No special precautions apply.

15. Regulatory information

Local laws and regulations should be carefully observed.

16. Other information

Elga requests the users of this product to read this Safety Data Sheet carefully and become aware of hazards implied and the Safety information. The customer should provide this Safety Data Sheet to any person involved in its use or further distribution.

This Safety Data Sheet complies with Regulation (EC) No 1907/2006 and ISO 11014 and is based on present knowledge and regulations.

This information is to be considered as a general guidance.